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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/964,581 | 09/28/2001 | Yumiko Oyasato | 212462US0RD | 2398 |

22850 7590 03/26/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
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| EXAMINER |
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WYROZEBSKI LEE, KATARZYNA I

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| ART UNIT | PAPER NUMBER |
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1714

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,581

Applicant(s)

OYASATO ET AL.

Examiner

Katarzyna Wyrozebski Lee

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8-17 is/are rejected.
- 7) ☒ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

In view of the applicant's amendment filed on 1/22/2004 following office action is final. The prior art of record is not overcome and rejections stated in the first office action on the merits are incorporated here by reference.

Election/Restrictions

1. Applicant's election with traverse of Group I in Paper Dated 8/22/2003 is acknowledged. The applicants argued in the response that the examiner has not shown or proven that the claims originally presented are patentably distinct.

With respect to the above argument examiner disagrees. With respect to the apparatus claim of Group II and control program of Group III are not the same as process or a composition and therefore cannot be adequately examined by the examiner who has no skill in such art. Mainly these types of claims are examined by entirely different art unit (in case of apparatus) and different tech center (in case of the control program). It is examiner's position that this response is more than sufficient reasons for holding the restriction. The restriction placed during the first office action on the merits is therefore final.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 4-6, 8-12, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by CASTLE (US 3,954,681).

The discussion of the disclosure of the prior art of CASTLE from paragraph 9 of the first office action on the merits dated 8/22/2003 is incorporated here by reference.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over CASTLE (US 3,954,681) in view of MUNZMAY (US 5,616,623).

The discussion of the disclosure of the prior art of CASTLE and MUNZMAY from paragraph 13 of the first office action on the merits dates 8/22/2003 is incorporated here by reference.

Allowable Subject Matter

6. Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach step of monitoring the addition of decomposer until its content is reduced to less than 10 %. In fact, the prior art of CASTLE utilizes larger amounts of decomposing solvent (col. 6) so that the PU particles are uniformly dispersed. The prior art of MUNZMAY adds PU to large amount of already heated decomposing solvent, wherein the amount of solvent is greater than 10%.

The temperatures of the premixing or pre-kneading step of CASTLE are the same during the step of adding the decomposing solvent into the waste resin and are maintained through the reaction time and afterwards. CASTLE does not teach lowering of the temperature during the reaction time. MUNZMAY does not pre-heat its waste polymer.

7. In the response dated 1/22/2004 the applicants argued following:

a) The prior art of CASTLE neither discloses nor suggests the presently claimed invention.

CASTLE does not teach pre-heating step, but heating of the polyurethane waste during milling step.

With respect to the above argument the examiner disagrees. The fact that the prior art of CASTLE does not specifically use term "pre-heating" that does not disqualify it as a prior art against present claims. The prior art of CASTLE uses milling as a means of heating the

Art Unit: 1714

polyurethane waste to a temperature high enough to obtain the cohesive force. The polyurethane waste in the prior art of CASTLE is crumbled before it is subjected to milling. The devulcanizing step is then continued by addition of water or alcohol. The example I to which applicants refer utilizes temperature of 130°F to obtain a polyurethane waste in cohesive form. Then at temperature of 220-290°F with mixing for 15 minutes in presence of water the waste is devulcanized. Therefore the 15 minute time disclosed in line 36 of example 1 was not the time, which was spent pre-heating or obtaining cohesive force but the devulcanization time.

The applicants' claims are very broad and therefore allow any means of pre-heating the polyurethane waste. Therefore milling that is a source of heat qualifies. Furthermore term cohesive form, means that the polyurethane waste had to be heated, because it is softened.

b) Butanediol in Example III is not devulcanizing agent but curing agent.

Examiner agrees, however, this does not affect the rejection, since claims of the present invention do not recite butanediol. In addition specification of CASTLE still teaches use of alcohols as devulcanizing agents.

c) The MUNZMAY does not remedy deficiencies of CASTLE. Without present disclosure as a guideline one of ordinary skill in the art would not have combined the disclosures of CASTLE and MUNZMAY.

The applicants are correct with statement that the examiner relies on the prior art of MUNZMAY for disclosure of other compounds that would decompose polyurethane. With respect to the guidelines by which one of ordinary skill in the art would combine the prior art

Art Unit: 1714

disclosures, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The fact that both disclosures of MUNZMAY and CASTE deal with decomposition of polyurethane waste puts them in the same field of endeavor. Therefore finding obviousness does not require existence of express, written motivation to combine in prior art.

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1714

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Katarzyna Wyrozebski Lee
Primary Examiner
Art Unit 1714

kiwl
March 22, 2004